

CLAIMS

1. A method of manufacturing a semiconductor device by mounting a semiconductor chip on a flexible substrate in which a plurality of internal connecting electrodes to be connected to a plurality of protruding electrodes provided on an element surface of the semiconductor chip and a plurality of wires for connecting the internal connecting electrodes and a plurality of external connecting electrodes to be connected to external devices are provided on a surface of an insulating film, and the internal connecting electrodes, the wires and the surface of the insulating film are coated with a protective film, comprising the steps of:

positioning the element surface so as to face the flexible substrate; and

connecting the protruding electrodes and the internal connecting electrodes by causing the protruding electrodes to pierce the protective film.

2. The method of manufacturing a semiconductor device according to claim 1, further comprising the step of sealing a periphery of the semiconductor chip with synthetic resin.

3. A flexible substrate to be connected to a semiconductor chip, comprising:

an insulting film;

a plurality of internal connecting electrodes, provided on a surface of the insulating film, to be connected to the semiconductor chip;

a plurality of wires, provided on the surface of the insulating film, for connecting the internal connecting electrodes and a plurality of external connecting electrodes to be connected to external devices; and

a protective film for coating the internal connecting electrodes, the wires and the surface of the insulating film.

4. A semiconductor device comprising:

a semiconductor chip; and

a flexible substrate connected to the semiconductor chip, the flexible substrate including:

an insulating film;

a plurality of internal connecting electrodes, provided on a surface of the insulating film, to be connected to the semiconductor chip;

a plurality of wires, provided on the surface of the insulating film, for connecting the internal connecting electrodes and a plurality of external connecting electrodes to be connected to external devices; and

a protective film for coating the internal connecting electrodes, the wires and the surface of the insulating film,

wherein the semiconductor chip is mounted by positioning an

element surface so as to face a surface of the flexible substrate and connecting the element surface to the internal connecting electrodes of the flexible substrate.

5. The semiconductor device according to claim 4, wherein a periphery of the semiconductor chip is sealed with synthetic resin.